DOCUMENT RESUME

ED 372 738 IR 016 679

AUTHOR Jackson-Brown, Grace; Pershing, Gwendolyn
TITLE Comparisons of Graduate and Undergraduate End-Users of ERIC and PsycLIT on CD-ROM.
PUB DATE Apr 93
NOTE 18p.; Paper presented at the Association of College and Research Libraries National Conference (6th, Salt Lake City, UT, April 12-14, 1993).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Access to Education; Bibliographic Databases; College Libraries; Graduate Students; Higher Education; Information Retrieval; *Library Instruction; *Optical Data Disks; Search Strategies; Student Surveys; *Training; Undergraduate Students; User Needs (Information); Users (Information); *User Satisfaction (Information)
IDENTIFIERS *ERIC; Indiana University Bloomington; *PsycLIT

ABSTRACT

ERIC and PsycLit are two of the most frequently searched CD-ROM databases at the Indiana University-Bloomington campus. Training has been developed to help students use these popular resources. This includes classroom presentations on ERIC in the Education Department and training workshops in the library for ERIC and PsycLit users. In 1990 a survey was designed and administered to a sample of end users of each database to determine how training affected end-user satisfaction with search results. Undergraduate students completed 146 surveys and graduate students completed 111. The basic finding was that trained users (67.7%) expressed more satisfaction with search results than did untrained and self-taught users (47.4%). User satisfaction was generally greater at the Education Library than at the Reference Library, probably because all undergraduate education majors are required to receive ERIC training in the classroom. Four figures and one table present study findings. (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 372 738

Comparisons of Graduate and Undergraduate End-Users of ERIC and PsycLit on CD-ROM

Grace Jackson-Brown

Gwendolyn Pershing

Unpublished paper presented at the 6th National ACRL Conference, Salt Lake City, Utah. April 12-14, 1993.

IR016679

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Grace Jackson-Brown

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

Comparisons of Graduate and Undergraduate End-Users of ERIC and PsycLit on CD-ROM

The Indiana University Libraries system on the Bloomington campus consist of the Main Library, 15 branch libraries, and twelve residence hall libraries. The libraries maintain a collection of over 4.5 million printed volumes, and many computerized resources. CD-ROM databases are becoming an increasingly popular research tool among the students and faculty of Indiana University.

ERIC and PsycLit are two of the most frequently searched CD-ROM databases on the Indiana University - Bloomington (IUB) campus. ERIC, the complete database of educational material from the Education Resources Information Center, corresponds to two print indexes, Resources in Education and Current Index to Journals in Education. PsycLit is produced by the American Psychological Association and covers over 1,300 journals, technical reports, monographs, dissertations, and unpublished research documents.

At IUB, an introduction to ERIC is taught by a librarian in one class period as part of a required undergraduate computer literacy course in the School of Education. Training workshops on ERIC and PsycLit, one and a half hour in duration, are offered to graduate students and faculty. The workshops are attended on a voluntary basis and include both introductory and advanced searching.

Comparisons of Graduate and Undergraduate End-Users of ERIC and PsycLit on CD-ROM

Several substantial CD-ROM end-user studies support the conclusion that formal training is not needed to enable the end-user to search most CD-ROM databases, including ERIC and PsycLit. (1) The experience at the IUB Libraries is that many students and other users of the CD-ROM databases require assistance to conduct their computer searches. The ERIC classroom presentations in the School of Education and the training workshops for ERIC and PsycLIt at the Main Library were established to acquaint users with the particular databases, and introduce various CD-ROM searching techniques. The purpose of the CD-ROM training was to assist end-users in becoming more proficient and self-sufficient searchers, and to ease the demands placed upon a limited reference staff who gave search help.

During spring semester 1990, a survey was designed and administered to a sampling of PsycLit and ERIC on CD-ROM end-users at IUB to determine how training effected end-user satisfaction with search results. Some strong contrasts were found between the satisfaction levels of undergraduate and graduate students who had searched PsycLit and ERIC on CD-ROM. The survey, ERIC/PsycLit End-User Satisfaction Survey, was based on previously published CD-ROM end-user surveys, particularly those published in the Association of Research Libraries SPEC Kit #133, Optical Discs for Storage and Access in ARL Libraries.(2)

A procedure of random distribution of the ERIC/PsycLit End-

User Satisfaction Survey was adopted at two IUB library sites, the Main Library-Reference Department and the Education Library. This distribution occurred from February, 1990 through May, 1990. In addition, surveys were also distributed to some faculty members in the School of Education after the librarian's classroom presentation on ERIC. The students in the classes were asked to complete the survey along with their ERIC assignment, and the faculty members returned the surveys to the Education Library. Faculty and graduate student workshop participants were given a survey along with a campus mail envelope, and were asked to mail the completed survey to the Reference Department.

Two hundred and fifty-seven usable surveys were administered to students during the survey period, 146 undergraduate surveys and 111 graduate surveys. In some instances partially incomplete surveys were counted, thereby resulting in a smaller total than 257 for some survey questions. The composition of survey participants from the two library settings was as follows: 69 undergraduates and 31 graduates at the Education Library, 77 undergraduates and 80 graduates at the Reference Department. There were 99 trained end-users and 158 untrained end-users in the survey.

The results of the survey were tabulated and analyzed using PARADOX, a relational database management program.

The basic finding of the survey was that trained ERIC/PsycLit end-users expressed a greater level of satisfaction with their

search results than untrained or self-taught end-users. Survey participants were asked if they were satisfied with the results of their searches and were given three possible answers to mark--completely satisfied, partially satisfied, or not satisfied (See Table I). Most formally trained end-users marked that they were completely satisfied with their search results. A large majority, 67.7%, of the formally trained users in the survey reported that they were completely satisfied with their search results. In contrast, only 47.4 percent of the self-taught or untrained end-users expressed complete satisfaction with the results of their searches.

The aforementioned finding coincides with the results of a end-user study conducted at Cornell University.(3) The Cornell study found that students using ERIC on SilverPlatter outperformed students searching the same topics in the ERIC printed indices. The students expressed an overwhelming preference for the CD-ROM product over the printed indices. And furthermore, those students who were formally instructed in the use of ERIC on CD-ROM moderately outperformed students who used the ERIC on CD-ROM without formal instruction.

The trained undergraduate end-user in the IUB study expressed the highest level of "complete satisfaction" among the groups in the IUB survey (See "Status-Training-Satisfaction" Figure I). The trained undergraduate students that indicated complete satisfaction

with their search results outnumbered those trained undergraduates that were only partially satisfied by more than a 2 to 1 ratio, or 50 completely satisfied as opposed to 17 partially satisfied. Two trained undergraduate end-users indicated that they were not satisfied with their search results.

Similarly, 17 of the trained graduate students were completely satisfied and 9 of the trained graduate students were partially satisfied. None of the trained graduate students stated that they were not satisfied with their search results.

There was a much larger percentage of trained undergraduate students represented in the survey than there were trained graduates. This was probably due to the mandatory nature of the undergraduate ERIC CD-ROM training in the School of Education course (See "Status and Training" Figure II). Only 25.2% of the graduate students in the survey were formally trained as compared to 48.6% of the undergraduate students in the survey who had received formal training.

Besides the differences in satisfaction and training levels between undergraduate and graduate CD-ROM end-users, the survey also revealed distinct differences in the amount of searching time spent by graduate students and undergraduate students. Survey participants marked their search time on the survey based on the following list of times: <10, 10-20, 21-30, <30. According to the survey, the majority of the graduate students, trained and

untrained, spent more than 30 minutes searching the database per session (See "Status-Training-Time" Figure III). Regardless of whether or not the undergraduate students had received training, the average time spent searching the database was 10-20 minutes. The larger periods of searching time spent by graduate students probably reflect that their searches were more complex or involved more extensive literature searching than what was required by the undergraduates.

The Education Library allows students to reserve 30 minutes per day for searching, and the Reference Department allows students to reserve two 30 minute search sessions or an hour per day. However, reserving computer time is not a requirement at either library setting. At both library settings students may search the database as long as they want on a first come basis as long as it doesn't interfere with time that has been reserved. In practice this scheduling scheme works well at both library settings, but it is unknown whether students have conformed to the scheduling structure. The survey seems to indicate that graduate students' average search time is conducive to work in the Reference Department, and the undergraduate students' average search time is more adaptable to the Education Library.

A variety of differences in responses between graduate and undergraduate students appear in the survey results pertaining to end-user satisfaction and student majors. The education major

graduate students in the survey gave the "partially satisfied" response for their search results slightly more frequently than the "completely satisfied" response for their search results (See "Satisfaction by Student Major" Figure IV). Among the graduate psychology majors and other major categories most respondents noted that they were completely satisfied with their search results. A majority of the unknown or unspecified majors among the graduate students also stated that they were completely satisfied with their search results.

The education major undergraduate student response in the survey was quite different from that of education major graduate students with approximately 77% of the undergraduate education majors reporting complete satisfaction with their search results. Psychology major undergraduates who were completely satisfied with their search results only slightly outnumbered those who were partially satisfied. The undergraduates who indicated that they had a major other than education or psychology responded slightly higher in the partially satisfied category. And, the undergraduate unknown or unspecified majors answered slightly more frequently that they were completely satisfied with their search results.

Perhaps the undergraduates education majors in the survey benefited from having a background in the subject discipline of the CD-ROM databases as well as from having formal training for ERIC. The graduate education majors who had not received formal training

in ERIC or PsycLit, but who were faced with the need to conduct complex searches would certainly be at a greater disadvantage than formally trained undergraduate education majors. This frustration is reflected in the survey by about 47% of the graduate respondents who were only partially satisfied with their search results and the one respondent who indicated that he or she was not satisfied with the results of the search which was conducted. In order to improve upon the satisfaction level of graduate students with CD-ROM, the IUB survey points up the need to encourage graduate students to participate in CD-ROM training.

A considerable difference in the level of expressed satisfaction between students at the two library sites was revealed in the survey. Approximately 72% of the students surveyed at the Education Library responded that they were completely satisfied with their search results as opposed to only approximately 45% of the students from the Reference Department who expressed this sentiment.

The authors of this position paper, who are both reference librarians who work with the CD-ROM end-users on a daily basis, attribute the difference in expressed user satisfaction between the two library settings to a number of factors. Formal training is the primary factor improving CD-ROM end-user satisfaction among the surveyed students, especially among undergraduates. The ability to provide individualized reference assistance to CD-ROM end-users

is another factor. Because all undergraduate education majors are required to receive ERIC training in the classroom, and because the Education Library had mainly undergraduate end-users within its surveyed population this increased the potential of accumulating a large segment of completely satisfied patrons at the Education Library.

Many of the surveyed students who had searched either ERIC or PsycLit in the Reference Department had not attended the ERIC and PsycLit training workshops, nor had they received any form of formal CD-ROM database training. Based upon the survey findings, only 29% of the Reference Department CD-ROM end-users were formally trained CD-ROM end-users, as compared to 54% of the end-users at the Education Library who had received formal training. In addition, many of the surveyed students who searched ERIC or PsycLit in the Reference Department may have been undeclared majors or majors outside of the database subject disciplines. In general, the large numbers of CD-ROM end-user searchers in the Reference Department makes it virtually impossible for a limited staff to give individualized attention to all who may have needed it.

The IUB survey results reinforce what was found by Gillian Allen at the University of Illinois in a survey on what CD-ROM end-users really want in CD-ROM training. According to Allen, "It was the individualized training programs that were wanted: one-to-one instruction, help available, and demonstrations."(4)

In conclusion, all but five of the 257 end-users in the IUB survey stated that they would search the CD-ROM database again if the opportunity arose. However, it is important that librarians realize that user satisfaction with CD-ROM database searching among undergraduate and graduate students is influenced by a number of crucial factors within the library including CD-ROM training programs and adequate staffing at the reference desk to provide CD-ROM end-users with individualized assistance.

References

1. Linda Stewart and Jan Olsen, "Compact Disk Databases: Are They Good for Users?," Online 12: 48-52 (May 1988).

Meta Nissley, Peter Anderson, and Phyllis Gaal, "ROMping Through ERIC: Measuring Satisfaction and Effectiveness," Laserdisk Professional, 2: 95-100 (Jan. 1989).

Gillian Allen, "Patron Response to Bibliographic Databases on CD-ROM," RQ 29: 103-110 (Fall 1989).

2. Optical Discs for Storage and Access in ARL Libraries. Washington, D.C.: Office of Management Studies, Association of Research Libraries, 1987.

3. Stewart and Olsen, "Compact Disk Databases: Are They Good for Users?," p. 48-52.

4. Gillian Allen, "CD-ROM Training: What Do the Patrons Want?," RQ 30: 88-93 (Fall 1990).

TABLE I
TRAINING & SATISFACTION LEVEL

n=257 Total Responses	Trained n=99		Untrained n=158	
	Number	Percent	Number	Percent
Completely Satisfied	67	67.7	75	47.4
Partially Satisfied	26	26.2	70	44.3
Not Satisfied	2	2.0	8	3.2
No Response	4	4.0	5	3.2

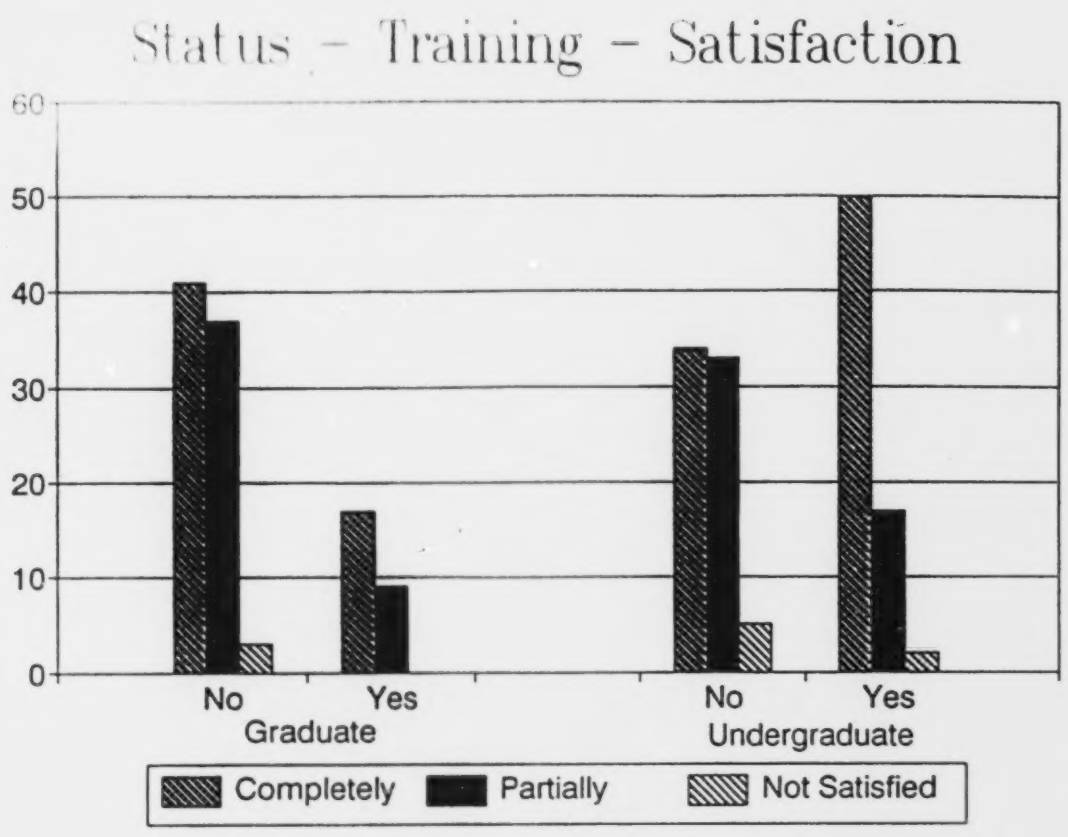
Status - Training - Satisfaction
60
50
40
30
20
10
0
No
Yes
Graduate
No
Yes
Undergraduate
Completely
Partially
Not Satisfied

Figure I

Status and Training

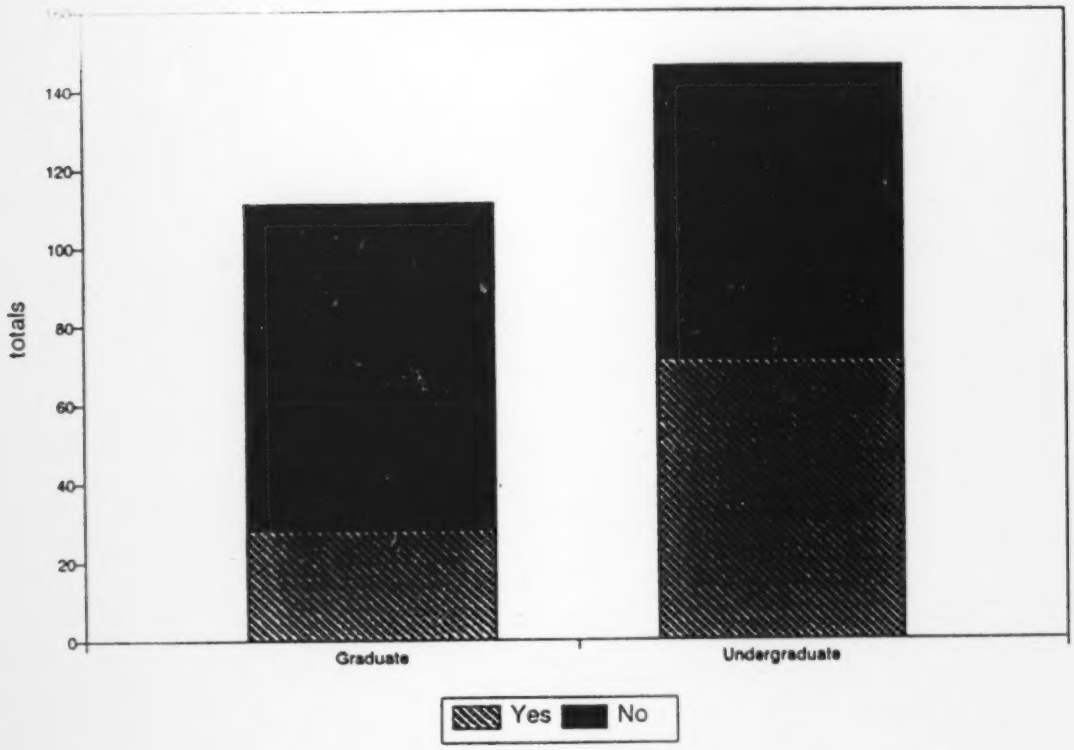

Figure II

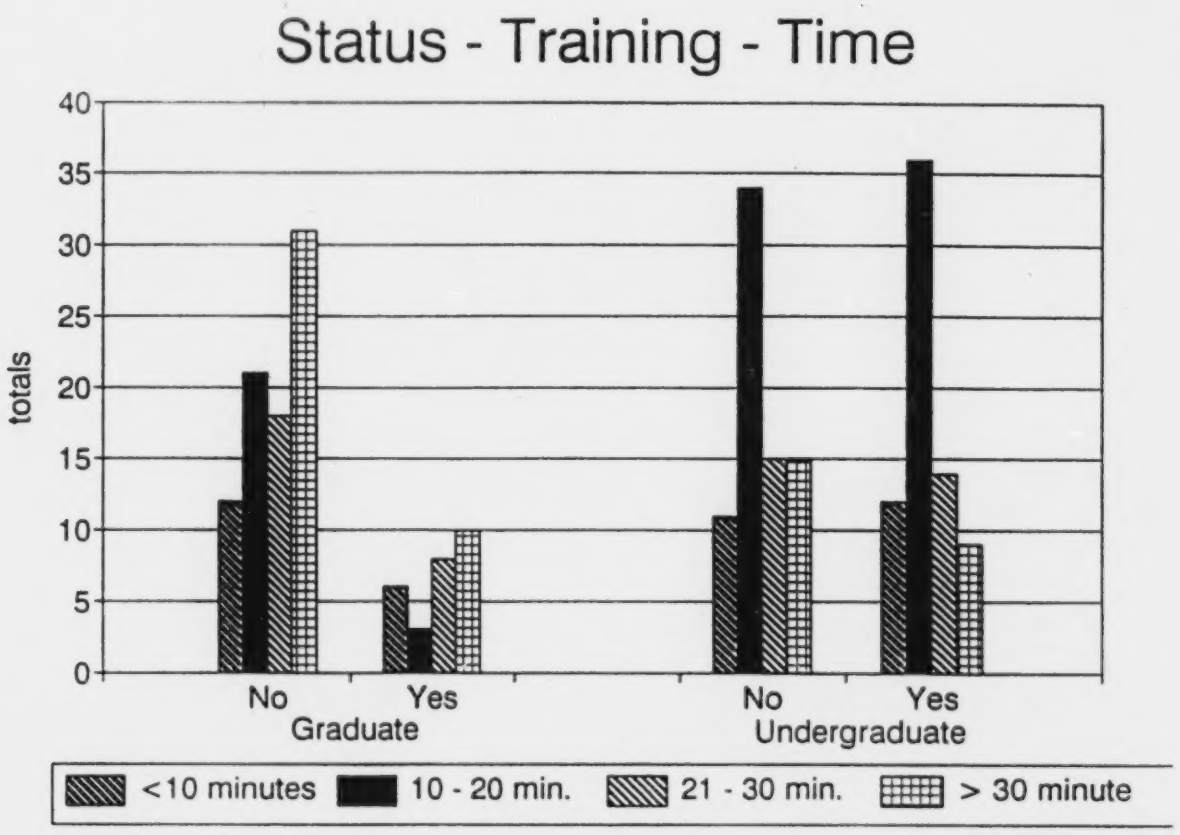
Status - Training - Time
40
35
30
25
20
15
10
5
0
totals
No
Yes
Graduate
No
Yes
Undergraduate
<10 minutes
10 - 20 min.
21 - 30 min.
> 30 minute

Figure III

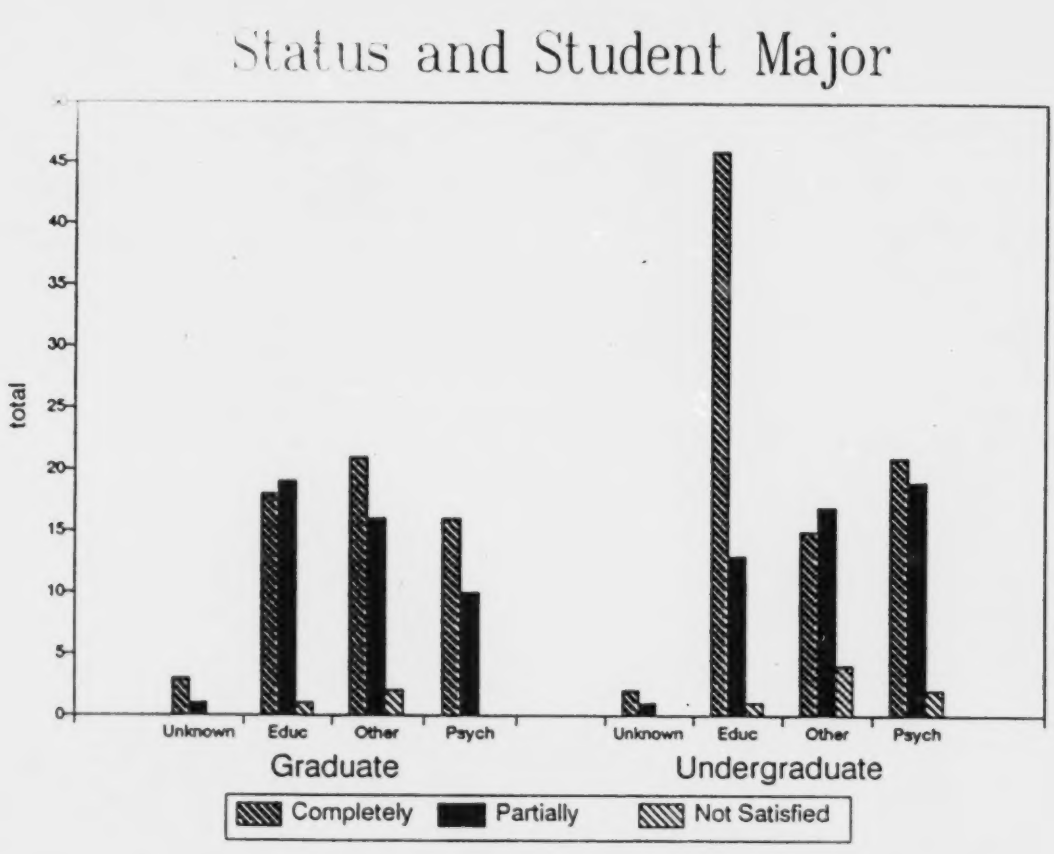
Status and Student Major
total
45
40
35
30
25
20
15
10
5
0
Unknown
Educ
Other
Psych
Unknown
Educ
Other
Psych
Graduate
Undergraduate
Completely
Partially
Not Satisfied

Figure IV